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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,990	07/11/2003	Michael D. Gandrud	P06591US0	4246

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ZARLEY LAW FIRM P.L.C.  
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DES MOINES, IA 50309-2350

EXAMINER
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LOPEZ, FRANK D

ART UNIT	PAPER NUMBER
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3745

DATE MAILED: 05/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action  
Before the Filing of an Appeal Brief**

Application No.

10/617,990

Applicant(s)

GANDRUD, MICHAEL D.

Examiner

F. Daniel Lopez

Art Unit

3745

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 25 April 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☐ The reply was filed after a final rejection, but prior to filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.  
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The reply was filed after the date of filing a Notice of Appeal, but prior to the date of filing an appeal brief. The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

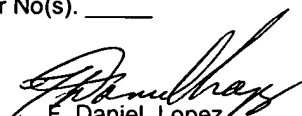
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: 1-5 and 7-11.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

  
F. Daniel Lopez  
Primary Examiner  
Art Unit: 3745

Continuation of 11. does NOT place the application in condition for allowance because: of the following:

Applicant argues that there is sufficient support in the drawings for the limitation "a control means connected to the control valve in order to provide a loop flushing flow by activating only the control valve which is connected to a low pressure side of the loop flushing circuit", and submits that the examiner's objection recites language that is not specifically contained in the claim. The objection to the drawings stated that "the control system controlling the proportional control valve based on pressure in the system lines must be shown". The above limitation claims "activating only the control valve which is connected to a low pressure side". Clearly, there must be some way for the control means to sense which side of the loop is a low pressure side. This is what must be shown.

Applicant argues that the limitation "activating only the control valve which is connected to a low pressure side of the loop flushing circuit" is not confusing, since the claim would cover circuits with one or more valves, and since the limitation requires only the specific control valve be activated. It is understood that the low pressure line is switchable between one or the other of the first and second lines, and that the control valve is connected to only one of the first and second lines (either by a fixed line, fig 2, or by the switching valve 24). If this limitation is supposed to mean that the control valve is activated, only when the line it is connected to is the low pressure line; then this would be understandable, but that is not what is claimed. If this limitation is supposed to mean that there are two control valves, one for each line, and only the control valve which is connected to the low pressure line is activated; then this also would be understandable, but that is not what is claimed. If this limitation is supposed to mean that the control valve is always connected to the system line, that is the low pressure line, and therefore is always activated; then this would be understandable, but that is not what is claimed.

It must be emphasized that the above limitation is not just a broad limitation, that can be interpreted in any of the above ways. Rather any way it is interpreted, results in having something missing, which makes the claim incomplete, and therefore is confusing.

Applicant argues that the combination of Gollner and Fluid Power Design Handbook uses impermissible hindsight reasoning and that Fluid Power Design Handbook teaches away from the proposed combination. Applicant cites Fluid Power Design Handbook as saying "the proportional solenoid valve" is in a separate "category" from modulated electrical flow control valves", and also citing statements that indicate proportional solenoid valves are complex, whereas modulated valves modulate flow by rapidly opening and closing. Applicant is mistaken.

Fluid Power Design Handbook clearly states that "the choice is among on-off solenoid valves, proportional solenoid valves, servovalves, and stepmotor-modulated valves" (page 82 line 1-2). One of ordinary skill in the valve art would recognize this statement as meaning that these different types (categories) of valves have different ways of operation and structure, but that they all perform essentially the same function, and that a valve from any of the categories can be chosen to replace a valve from any of the other categories (i.e. are valve art recognized functionally equivalent). This statement of Fluid Power Design Handbook concerning the choice of valves is clearly the motivation for being able to replace the modulated valve of Gollner with a proportional solenoid valve; and therefore the combination of Gollner and Fluid Power Design Handbook does not use impermissible hindsight.

Applicant's discussion of complexity of the proportional solenoid valves appears to suggest that they would not be chosen, since modulated valves are simpler. Although the modulated valves might be simpler in construction, the control system for a modulated valve is more complex than a control system for a proportional valve. This is because the control system for the modulated valve must generate some type of variable wave signal (sine wave, square wave, etc.) to vary the flow therethrough, whereas the proportional valve needs essentially an amplifier to generate a control signal proportional to the desired output. The choice between a proportional solenoid valve and a modulated valve is therefore, not between a complex valve and a simple valve; rather it is between a complex valve with a simple control system, or a simple valve with a complex control system..